

ROZGAJ, Z.

"Refining clayish limonite," Tehnicki Pregled, Zagreb, Vol 6, No 1, 1954, p. 15.

SO: Eastern European Accessions List, Vol 3, No 11, Nov 1954, L.C.

Rozganov, K. I.

USSR Physics - Piezo-electric titanates

FD-1066

Card 1/1 Pub. 153 - 2/24

Author : Smolenskiy, G. A., and Rozganov, K. I.

Title : Piezo-electric properties of the solid solutions of the system barium titanate - strontium titanate

Periodical : Zhur. tekhn. fiz., 24, No 10, 1751-1761, Oct 1954

Abstract : The authors tested twenty different compositions (listed in a table). They found that the peak dielectric constant is higher than for barium titanate and that those with the highest values, as measured in weak fields, are ferroelectrically softest with a high maximum at relatively low intensity fields. The spontaneous polarization is found to decrease non-monotonically with increasing strontium titanate concentrations with a minimum for contents of 30 to 40%. Increase in the spontaneous polarization and decrease in the coercive force are observed during cooling at the first low-temperature transformation point. The low-temperature phase transformation points of solid solutions shift towards low-temperature range more slowly than the Curie temperatures. The main results of this article appeared in Doklady Akademii Nauk SSSR, Vol. 79, No 1, 1951.

Institution : -

Submitted : March 9, 1954

KOLOSOV, M.A.; YAKOVLEV, O.I.; YEFIMOV, A.I.; SHVACHKIN, K.M.; ROZGON, Yu.K.

Propagation of meter-long radio waves in the interplanetary space.
Radiotekh. i elektron. 9 no.10:1735-1739 O '64.

(MIRA 17:11)

L 11147-65 EWT(d)/FBD/FSF(h)/FSS-2/EWT(1)/EEG(k)-2/EWG(r)/EWA(d)/EEC-l/
EEC(t)/EEC(c)-2 Pd-1/Pe-5/Ph-l/P1-l/Pn-l/Po-l/Pq-l/Pac-l/Pae-2/Pb-l/
AFETR/RAEM(a) TT/UG/GW/WS/AST
ACCESSION NR: AP4046671

5/0109/64/009/010/1735/1739

(b)

AUTHOR: Kolosov, M. A.; Yakovlev, O. I.; Yefimov, A. I.; Shvachkin, K. M.
Rozgon, Yu. K.

TITLE: Meter-wave propagation in interplanetary space

SOURCE: Radiotekhnika i elektronika, v. 9, no. 10, 1964, 1735-1739

TOPIC TAGS: interplanetary space, meter wave, meter wave propagation, radio wave propagation

ABSTRACT: The results of an investigation of 183.6-Mc radio-wave propagation are reported and compared with some published data. The level of a signal received from Mars-1 artificial object was determined by comparing it with the receiver noise. The latter was measured by means of a calibrated noise generator and also by a comparison with the r-f radiation coming from Cassiopeia-A. Although the measurements within the 26-50-million-km range

Card 1/2

L 1147-65

ACCESSION NR: AP4046671

were not reliable, the maximum possible attenuation is estimated as 4 ± 2 db over a 50-million-km distance in interplanetary space. A comparison of these primary results with other American, British, and Soviet published data brings about these conclusions: (1) The meter-band radiowave attenuation over 50 million km is 2-4 db or lower; (2) Interplanetary space may cause interference-type fading; (3) Widening of the signal spectrum is 2×10^{-9} or less; (4) Some data indicates that a solar activity influence on a received-signal level and on radar ranging is possible. Orig. art. has: 2 figures.

ASSOCIATION: none

SUBMITTED: 05 May 64

ENCL: 00

SUB CODE: EC, AA

NO REF SOV: 003

OTHER: 010

Card 2/2

HUNGARY

ROZGONYI, Ferenc, Dr., REDAI, Imre, Dr; Medical University of Debrecen, Institute of Microbiology (director: VASZI, Lajos, Dr) (Debreceni Orvostudomanyi Egyetem, Mikrobiologiai Intezet).

"Changes in the Methicillin Sensitivity of Staphylococcus Aureus; Isolation of Methicillin-Resistant Staph. Aureus Strains."

Budapest, Orvosi Hetilap, Vol 107, No 43, 23 Oct 66, pages 2024-2027.

Abstract: [Authors' Hungarian summary] In the course of testing 300 Staph. aureus strains between 1 May 64-1 May 65, 8 methicillin-resistant strains were isolated. The strains can be looked upon as having a natural resistance to methicillin. Previous to the culture of the bacteria, the patients received neither methicillin nor any other penicillinase-resistant penicillin-type compounds. The majority of the strains isolated by the authors cannot be typed with Staph. phages; thus they are different, in this respect, from the majority of the methicillin-resistant strains reported in the literature which belong mainly to the III. phage group. 2 Hungarian, 14 Western references.

1/1

- 35 -

ROZGONI, I.I., VRYDNYK, F.I., LACODYUK, P.Z., CZHITSKY, S.Z., SKOROKHOD, V.I.,
DOVGAN, N.YA. (USSR)

"The conditions of Maintaining the Chemical Medium in the
Rumen in Ruminants."

Report presented to the 5th Int'l. Biochemistry Congress,
Moscow, 10-16 Aug 1961.

GZHITSKIY, S.Z. [Hzhysts'kyi, S.Z.]; DOVGAN', N.Ya. [Dovhan', N.IA.];
ROZGONI, I.I. [Rozhoni, I.I.]; SKOROKHOD, V.I. [Skorokhia, V.I.]

Effect of urea and sodium sulfate on fermentation processes in the
rumen of the cow. Ukr. biokhim. zhur. 33 no.1:101-106 '61.
(MIRA 14:3)

1. Research Institute of Agriculture and Animal Husbandry of the
Western Regions of the Ukrainian S.S.R.

(UREA) (SODIUM SULFATE)
(STOMACH-MICROBIOLOGY) (CATTLE-PHYSIOLOGY)

ROZGONI, I.I. [Rozhoni, I.I.]

Assimilation of sulfur from sulfates in the rumen of cows fed
on a ration containing urea. Dop. AN URSR no.9:1187-1189 '61.
(MIRA 14:11)

1. Ukrainskiy nauchno-issledovatel'skiy institut fiziologii i
biokhimii sel'skokhozyaystvennykh zhivotnykh. Predstavлено
akademikom AN USSR M.F.Gulym [Hulyi, M.F.]
(Dairy cattle--Feeding and feeding stuffs)

ROZGONI, I. I., Cand Bio Sci -- "Sulphur exchange indices
in cattle when feeding ^{upon} urea and sodium sulphate."
L'vov, 1961. (Min of Agrl UkrSSR. L'vov Zoovet Inst) (KL,
8-61, 238)

-169-

- 368 -

ROZCONYI, Kalman

The past of Hungary's nitrogen industry as reflected in the
history of the Pet Nitrogen Works. Magy kem lap 15 no.5/6:
210-219 My-Je '60.

1. Peti Nitrogenmuvek,

ROZONYI, A.

Situation of norms in the automobile repair industry. p. 3.
Don't allow anyone to thrust his hands into the pockets of society! p. 5.
AUTO MOTOR, Budapest, Vol. 4, no. 11, June 1955.

SO: Monthly List of East European Accessions, (SEAL), LC, Vol. 4, no. 10, Oct. 1955,
Uncl.

BALO, Gyorgy, Dr.; ROZGONYI, Cecilia, Dr.

Value of the cytological examination of vagina at the end of pregnancy and in prolonged pregnancies; attempt on prediction of term in pregnancy of means of cytological methods. Orv. hetil. 99 no.44:1533-1537 2 Nov 58.

1. A Debreceni Orvostudomanyi Egyetem Szuleszeti es Nogyogyaszati Klinika janak (igazgato: Arvay Sandor dr. egyet. tanar) es a Megyei Tanacs Korhaz (igazgato: Manyi Geza dr.) Szuleszeti es Nogyogyaszati Osztalyanak (foorvos: Kontsek Bela dr.) kozlemenye.

(PREGNANCY

term. determ. by cytol. esam. of vaginal smears (Hun))

(VAGINAL SMEARS, in pregn.

- cytol. exam. for determ. of term (Hun))

ROZGONYI C.B.

BALO, Gyorgy, Dr.; ROZGONYI, Cecilia, B., Dr.

Cytological picture of vaginal smears in normal pregnancy. Orv. hetil.
99 no.16:526-531 20 Apr 58.

1. A Debreceni Orvostudomanyi Egyetem Szuleszeti es Nogyogyaszati
Klinikajának (igazgató: Arvay Sándor dr. egyet. tanár) és a Megyei Kórház
Szuleszeti es Nogyogyaszati Osztályának (igazgató: Kontsek Béla dr.
főorvos) közleménye.

(PREGNANCY TESTS
cytol. picture of vaginal smears (Hun))
(VAGINAL SMEARS, in pregn.
diag. value of cytol. picture (Hun))

HUNGARY

ROZGONYI, Ferenc, Dr., VALENTA, Borbala, BRATOVICS, Ilona, CSIRE, Bela;
Medical University of Debrecen, Institute of Microbiology (director: VACZI.
Lajos, Dr) (Debreceni Orvostudomanyi Egyetem, Mikrobiologiai Intezet).

"Sensitivity of 'Polyresistant' Microorganisms Toward the More Recent Antibiotics. Changes in the Antibiotic Resistance of the More Important Pathogenic Bacteria Isolated From a Clinical Study Material Between 1962-65."

Budapest, Orvosi Hetilap, Vol 108, No 8, 19 Feb 67, pages 337-342.

Abstract: [Authors' Hungarian summary modified] The study led to the following observations. 1) During the past 4 years, the greatest increase in resistance occurred against terramycin. The per cent increases were: from 46 to 66 in *E. coli*, from 57 to 69 in *Klebsiella*, from 60 to 89 in *Ps. pyocyanne*a, from 46 to 69 in *Staph. aureus* and from 55 to 71 in *Strept. faecalis*. At the same time, there was a considerable increase in the chlorocid-resistant strains of *E. coli*, *Klebsiella* and *B. proteus*. 2) There was a slight decrease in the occurrence of polymyxin, streptomycin-and chlorocid-resistant strains of *Staph. aureus* and in the polymyxin-and chlorocid-resistant strains of *Strept. faecalis*. 3) Among the older, widely used antibiotics, polymyxin and streptomycin are the most effective against *E. coli*, *Klebsiella* and *Ps. pyocyanne*a; chlorocid and streptomycin against *B. proteus*; erythromycin, streptomycin and chlorocid against *Staph. aureus*; and erythromycin and chlorocid against *Strept. faecalis*. 4) In the past 4 years, there was a further increase in the ratio of "polyresistant"

1/2

ROZGONYI, Ferenc; VERES, Gergely; UJHELYI, Janosne

Description of the study entitled "Evaluation of closed areas from the point of view of heat engineering" winning 2d prize at the contest arranged by the Ministry of the Construction. Epuletgepeszet 13 no. 1:36-38 F '64.

HUNGARY

FODOR, Mihaly, ROZGONYI, Ferenc, CSEPKE, Erzsebet; University Medical School, Debrecen, Institute of Microbiology (director: VACZI, L.) [original language version not given].

"Correlation Between Phage-Type Coagulase, Hyaluronidase and Phosphatase Activity, and Mercuric Chloride Resistance of *Staphylococcus Aureus*."

Budapest, Acta Microbiologica Academiae Scientiarum Hungaricae, Vol X, No 1, 1963, pages 19-25.

Abstract: [English article, authors' English summary] Phage group I *Staphylococcus aureus* strains (especially phage type 80/81) exert a low coagulase and hyaluronidase but high phosphatase activity. Strains belonging to phage group II show a high coagulase and hyaluronidase and a medium phosphatase activity. Phage group III strains produce small amounts of phosphatase; their hyaluronidase and coagulase activity is of medium degree. Most of the "epidemic" strains are resistant to mercuric chloride. The resistance is not associated with the increased production of any of the enzymes examined. 4 Hungarian, 16 Western references.

1/1

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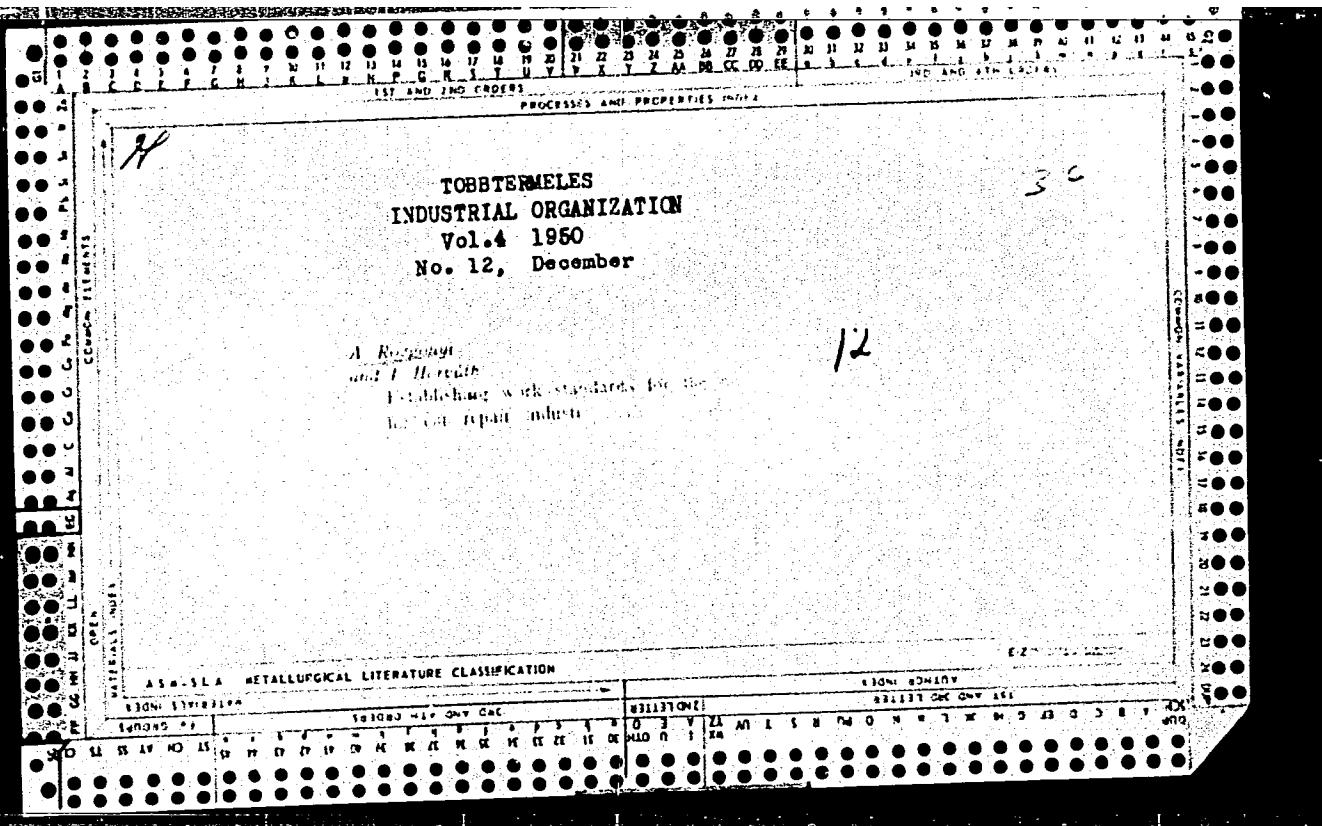
ROZGONYI, K.

ROZGONYI, K. An experiment for comparing the domestic and foreign prime
cost of nitrate fertilizers. p. 3.

Vol. 10, no. 6, June 1956

TOBBTERMELES
Budapest, Hungary

So: East European Accession, Vol. 6, No. 5, May 1957



BOMSKI, Henryk; ROZGOWA, Daniela

A new rapid method for the determination of ABO and Rh blood groups.
Polski tygod lek 15 no.11:388-392 14 Mr '60.

1. Z Oddzialu Chorob Wewnetrznych Szpitala Miejskiego w Zgierzu;
dyrektor Szpitala: dr med. St. Fijalkowski, ordynator Oddzialu:
dr H. Bornski.

(BLOOD GROUPS)

VARGA, E.; ROZH, K. [translator]; SHRESTAKOV, S.V. [translator]

Cholinesterase activity of contractile proteins (properties
and physiological role). Zhur. ob. biol. 20 no.1:3-15 Ja-Y
'59. (MIRA 12:2)

1. Fiziologicheskiy institut Meditsinskogo universiteta,
Debretsen, Vengriya.
(CHOLINESTERASE) (MYOSIN)

KOSHTOYANTS, Kh.S. [deceased]; ROZH, Katalin

Comparative pharmacological data on the effect of serotonin,
noradrenalin, adrenalin and chlorpromazine on the ganglia of
molluscs (*Helix pomatia*). *Acta physiol. hung.* 19 no.1-4:189-197
'61.

1. Kafedra fiziologii zhivotnykh i cheloveka Moskovskogo gosudar-
stvennogo universiteta.

(SEROTONIN pharmacol.) (EPINEPHRINE pharmacol.)
(NOREPINEPHRINE pharmacol.) (CHLORPROMAZINE pharmacol.)

KOSHTOYANTS, Kh.S. [deceased]; ROZINA, Katalin

Ecological and physiological features of osmoregulation in the
snail *Helix pomatia*. Zhur. ob. biol. 22 no.4:311-314 Jl-Ag
'61. (MIRA 15:6)

1. Department of Animal Physiology, State University of Moscow.
(OSMOSIS) (SNAILS)

TORO, I.; ROZNA, K. [translator]

Differentiation and dedifferentiation of cellular structure
and function. Zhur. ob. biol. 20 no.3:174-183 My-Je '59.
(MIRA 12:8)

1. Department of Histology and Embryology, Medical University,
Budapest, Hungary. (Cells)

Var.
ROZHA, KATALIN, CAND BIO SCI, "THE ROLE OF PHYSIOLOGICALLY
ACTIVE SUBSTANCES IN THE ACTIVITY OF THE NERVOUS SYSTEM OF
MOLLUSKS." MOSCOW, 1961. (MOSCOW ORDER OF LENIN AND ORDER
OF LABOR RED BANNER STATE UNIV IMENI M. V. LOMONOSOV. BIO AND
Soil Faculty. CHAIR OF *Zoophysiology*). (KL-DV, 11-61, 215).

-92-

KOSHTOYANTS, Kh.S.; ROZHA, Katalin.

Ascending effects during the action on the subpharyngeal ganglia
of Helix of serotonin, noradrenalin, tyramine and tryptamine. Fiziol.
zhur. 47 no.2:266-271. F '61. (MIRA 14:5)

1. From the Chair of Animal Physiology of the Moscow Lomonosov
State University.
(SEROTONIN) (NORADRENALINE) (IDOLE) (ERGOT)

ROZHA, Shandor [Rozsa, Sandor], inzh.

Transistor millivoltmeter. Radio no. 1:51-52 Ja '64.

(MIRA 17:8)

1. Sotrudnik zhurnala "Radiotekhnika", Budapesht, Vengerskaya
Narodnaya Respublika.

ROZHA, Shandor [Rozsa, Sander] (Budapest, Venegriya)

Two-stage transistor reflex receiver. Radio no.7:40 J1 '63.
(MIRA 16:7)

(Transistor radio)

ROZHALIN, L.V. (Moskva)

Degeneration of potatoes and measures for its control. Agro-
biologija no.6:912-922 N-D '62. (MIRA 16:1)
(Potatoes--Diseases and pests)

ROZHALIN, L. V.

ROZHALIN, L. V. "The Effect of Plant Nutrition on the Resistance of Different Potato Varieties to Bacterial Ring Disease," Raboty Nauchno-Issledovatel'skogo Instituta Kartofel'nogo Khoziaistva, no. 4, 1935, pp. 3-21. 75.9 L54

SO: SIRA SI 90-53, 15 Dec. 1953

ROZHALIN, L. V.

ROZHALIN, L. V. "The Nature of Concentric Necrosis of Potato Tubers," Trudy
Vsesoiuznoi Akademii Sel'skokhoziaistvennykh Nauk imeni V. I. Lenina,
no. 5, 1936, pp. 69-73. 464.32 V96

SO: SIRA SI 90-53, 15 Dec. 1953

ROZHALINE, L. V.

ROZHALINE, L. V., and BELOVA, O. D. "Spindly Tuber of Potatoes,"
Aerobiologia, v. 6, 1948, pp. 83-96. 20 Ag822

SO: SIRA SI 90-53, 15 Dec. 1953

ROZHANCHUK, Nikolay Mikhaylovich.

[Big step forward] Shirokim shagom. Moskva, Gos. izd-vo polit.
lit-ry, 1957. 31 p. (MIRA 11:9)
(Stock and stockbreeding)

ROZEMICZ, E.

Decorating Chinese china. Pt. 2. p. 303.

SZKLO I CERAMIKA. (Centralne Zarzady Przemyslu Szklarskiego i Ceramycznego oraz
Stowarzyszenie Naukowo-Techniczne Insynierow i Technikow Przemyslu Chemicznego)
Warszawa, Poland.
Vol.6, no.12, Dec. 1955.

Monthly list of East European Accessions (EEAI) LC, Vol.9, no.1, Jan. 1959.

Uncl.

KOLOTUKHINA, Sof'ya Yevgen'yevna; PERVUKHINA, Ada Yevgen'yevna;
ROZHANETS, Anna Vsevolodovna; MURATOV, M.V., retsenzent;
KRCPOTKIN, P.N., retsenzent; VLASOV, K.A., glav. red.;
LEONT'YEV, L.N., doktor geol.-miner. nauk, otv. red.

[Geology of rare element deposits in Africa and their
economic significance] Geologija mestorozhdenii redkikh
elementov Afriki i ikh ekonomicheskoe znachenie. Mo-
skva, Nauka, 1964. 303 p. (MIRA 17:8)

1. Chlen-korrespondent AN SSSR (for Vlasov).

Rozhanets, G.M.

USSR/Cultivated Plants. Introduction and Acclimatization

M-2

Abs Jour : Ref Zhur - Biol., No 1, 1958, No 1447

Author : G.M. Rozhanets

Inst : Magarach Institute

Title : Introduction to an Effective Method of Enriching the Assortment
of Grape Plantings.

Orig Pub : Vinozdravliye i vinogradarstvo USSR, 1956, No 6, 27-31.

Abstract : Based on research carried out on the ampelographic collection in Yalta (at the Magarach Institute) and in the experimental plant-variety tracts established in Krymskaya Oblast', a considerable expansion of the industrial grape assortment of the Crimea was successfully achieved. Ten valuable varieties were selected for new plantings, among which were Sultan, Teyfi, Bayan, Kul'dzhinskiy, Khindogry, Terbash and others. In 1955, up to 7 million cuttings of the assortments indicated have been imported into the Crimea from the Republics of Central Asia. During the introduction, it proved clearly necessary to study carefully those climatic factors to which grape varieties are

Card : 1/2

... due to the part wo the most favorable conditions for the deposit of racemes. Thus, in Central Asia with its relatively continental climate and high temperature during the summer months, bud clusters are deposited in considerably greater numbers - in the cases of the

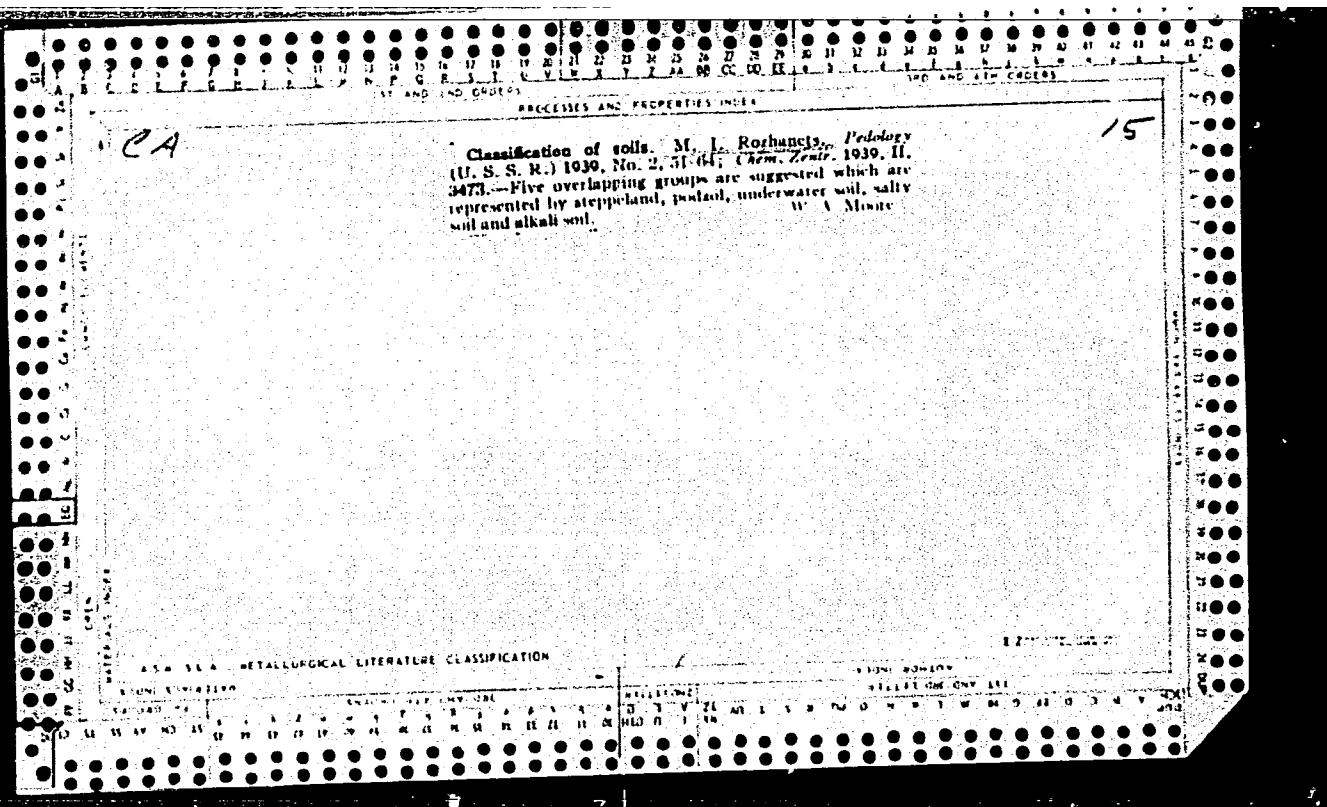
APPROVED FOR RELEASE 09/19/2001 CIA-RDP86-00513R001445710002-7
ditions of warm sea climate of the Southern coast of the Crimea, especially in years with warm winter and prolonged cold spring. Therefore, it is recommended that these varieties be planted in the regions of the Crimean foot hills and to some extent the steppes, where there is a more continental climate.

Card : 2/2

ROZHANEIS, M.I.

21846 ROZHANEIS, M.I. Kompleksnost' yuzhnykh chernozemov Zavolzh'ya.
Trudy Pushkinsk, s.-kh. in-ta, t.XIX, 1949, s. 5-23. - Bibliogr:
7 na zv.

SO: Letopis' Zhurnal'nykh Statey, No. 29, Moskva, 1949



ROZHANETS - KUCHEROVSKAYA, S.E.

ROZHANETS - KUCHEROVSKAYA, S.E. Estestvennye i kul'turnye rastitel'nye landshafty
Predural'ia v predelakh spasskoperovskogo raiona Orenburgskoi gub. Leningrad.
1927. 78 p. (Chkalov, Russia; Orenburgskoe pochvennobotanicheskoe biuro. Trudy, no.
3.)

S: LC, Soviet Geography. Part I, 1951, Uncl.

ROZHANETS, M. I.

OSU-A 318

Pochvy i Rastitel'nost' Okrestnosti g. Tomska—Soil
and Vegetation of the neighborhood of the city of
Tomsk.

Izvestiya Tomskogo Gosudarstvennogo Universiteta, Vol.
81, 1928, pp. 317-406

Library of Congress, Smithsonian Division, AS262-T5
Description of the area, climate, hydrography, etc.
Map of city and neighborhood within 20 km., scale
1:84,000

Russian text.

35

15-57-5-6610

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 5,
p 131 (USSR)

AUTHOR: Rozhanets, V. M.

TITLE: Mica Occurrences in Central Asia, Kazakhstan, and
Altay (K voprosu o slyudonosnosti Sredney Azii, Kazakh-
stanai Altaya)

PERIODICAL: Tr. In-ta geol. AN KirgSSR, 1956, Nr 8, pp 121-124.

ABSTRACT: Favorable factors in prospecting for micaceous pegma-
tites in Central Asia, Kazakhstan, and Altay, according
to the author, are found in the following geological
complexes: 1) regionally metamorphosed Precambrian
rocks, chiefly Archean, and associated with Archean
granitoidal rocks; 2) regionally metamorphosed Pre-
camrian rocks associated with active Hercynian
intrusions of granitoidal rocks, rich in volatiles;
3) regionally metamorphosed sandstones and shales of
lower and middle Paleozoic age, characterized by super-
imposed contact metamorphism in association with active

Card 1/2

PURKIN, M.M.; POYARKOV, B.V.; ROZHANETS, V.M.

Stratigraphy and new foraminifer species from Tournaisian
deposits of the Borkoldoy Range (Tien Shan). Izv. AN Kir.
SSR. Ser. est. i tekhn. nauk 3 no.4:15-36 '61. (MIRA 14:12)
(Borkoldoy Range—Geology, Stratigraphic)
(Foraminifera, Fossil)

ROZHANETS, V.M.

Mica occurrence in Central Asia, Kazakhstan, and in the Altai
Mountains. Trudy Inst.geol. AH Kir.SSR no.8:121-124 '56.
(Soviet Central Asia--Mica) (MLRA 10:2)

RUBINSHTEYN, Grigoriy Leonidovich, doktor ekon. nauk, prof.;
Prinimali uchastiye: BUKOVETSKIY, A.I., doktor ekon. nauk
prof.; VASIL'YEV, A.A., kand. ekon. nauk, dots.; VOLOKITIN,
A.S., kand. ekon. nauk, dots.; SARYCHEV, V.G., kand. ekon.
nauk, dots.; LUKASHEV, M.Ya., kand. ist. nauk, dots.;
LYSENKO, S.P., kand. ekon. nauk, dots.; BAK, I.S., doktor
ekon. nauk, prof., retsenzent; GOCOL', B.I., doktor ekon. nauk,
prof., retsenzent; ABATUROV, A.I., prof., red.; ROZHANKOVSKAYA,
I.I., red.

[Development of domestic trade in the U.S.S.R.] Razvitiye vnutren-
nei torgovli v SSSR. Leningrad, Izd-vo Leningr. univ., 1964.
394 p. (MIRA 18:4)

KUL'BA, F.Ya.; MIRONOV, V.Ye.; ANAN'YEVA, L.A.; ANDREYEVA, O.S.;
ROZHANOVSKAYA, L.P.

Complex compounds of thallium triiodides with 1,10-phenanthroline. Zhur. neorg. khim. 8 no.6:1400-1401 Je '63.
(MIRA 16:6)

1. Leningradskiy tekhnologicheskiy institut imeni Lensoveta,
kafedra obshchey khimii.

(Thallium compounds)
(Phenanthroline)

KUL'BA, F.Ya., MIRONOV, V.Ye., ROZHANOVSKAYA, L.P., SKURATOV, O.A.

Trivalent thallium bromide, iodide, and nitrate compounds
with 3,3'-dipyridyl. Zhur. neorg. khim. 9 no.7:1630-1632
Jl '64. (MIRA 17:9)

1. Leningradskiy tekhnologicheskiy institut imeni Lensoveta,
kafedra obshchey khimii.

KUL'BA, F.Ya.; MIRONOV, V.Ye.; ROZHANOVSKAYA, L.P.

New compounds of trivalent thallium halides with 3,3'- and
4,4'-dipyridyl. Zhur.neorg.khim. 7 no.10:2320-2322 '62.
(MIRA '15:10)

1. Leningradskiy tekhnologicheskiy institut imeni Lensoveta,
kafedra obshchey khimii.
(Thallium compounds) (Bipyridine)

9.6150

39151
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E075/E436

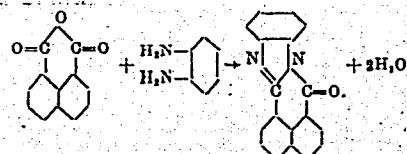
AUTHORS: Mikhal'chenko, G.A., Nichugovskiy, G.F.,
Rozhanovskaya, L.P.

TITLE: Plastic scintillators with the maximum luminescence
in the region of 500 millimicrons

PERIODICAL: Pribory i tekhnika eksperimenta, no.3, 1962, 66-70

TEXT: The authors describe preparation and purification of
1,2-perinaphthalene-benzimidazole (I) and 1,2-(perinaphthalene-3'-
acetoxy)-benzimidazole (II). The luminescent properties of the
compounds dissolved in polystyrene were studied.

I was obtained by condensation of naphthalic anhydride with
orthophenylene diamine

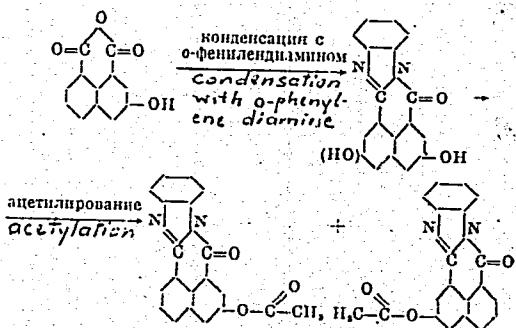


Card 1/3

Plastic scintillators ...

S/120/62/000/003/013/048
E075/E436

II was obtained by the reaction



It was shown that the relative luminescent yield increased with the initial concentration of the compounds up to 1.0×10^{-2} to 1.5×10^{-2} g per 1 g of polystyrene. Maximum luminescence corresponded to the wavelength $\lambda_{\text{max}} = 495 \text{ m}\mu$. When the concentration of I changed from 0.91×10^{-4} to 2.3×10^{-2} per g of polystyrene, the maximum shifted from ~ 490 to $\sim 505 \text{ m}\mu$.

Card 2/3

S/120/62/000/003/013/048
E075/E436

Plastic scintillators ...

The presence of para-terphenyl in the solution (2% weight) increased the internal yield of luminescence by 2.8 times, whilst not changing the position of the maximum. The maximum luminescence given by the compounds corresponds well to the region of maximum eye sensitivity ($507 \text{ m}\mu$) under conditions of poor illumination. The compounds studied can be utilized for the visual recording of ionizing irradiations. There are 4 figures and 1 table.

ASSOCIATION: Leningradskiy tekhnologicheskiy institut
(Leningrad Technological Institute)

SUBMITTED: October 20, 1961

Card 3/3

ROZHANOVSKAYA, M.I.

Martynia in Tashkent. Biul.Glav.bot.sada no.58:104-105 '65.
(MIRA 18:12)

1. Botanicheskiy sad AN Uzbekskoy SSR, Tashkent.

ROZHANOVSKIY, I.M.

Determination and unification of magnetic characteristics of
materials in alternating magnetic fields. Trudy inst. Kom.stn.ad.mer
i izm. prib no.64:27-38 '62. (MIRA 16:5)
(Magnetic materials—Testing) (Magnetic fields)

S/032/63/029/003/009/020
E104/B186

AUTHOR: Rozhanovskiy, I. M.

TITLE: Some problems of establishing and standardization of the magnetic characteristics in variable magnetic fields

PERIODICAL: Zavodskaya laboratoriya, v. 29, no. 3, 1963, 305 - 309

TEXT: In the introduction some deficiencies of the ГОСТ 802-58 (GOST 802-58) standard for specific losses in steel in variable fields are discussed. It is shown that this standard does not meet modern requirements. A new version of this standard should consider the following conditions for determining the characteristics to be standardized: the form of the sinusoidal emf (50, 400, 1000, 2000 cps); magnetization at a sinusoidal field intensity and sinusoidal magnetic induction; the form factors of the curves $E(t)$, $B(t)$, and $H(t)$. To illustrate the theoretical basis of such characteristics, it is shown by a differential equation for an electric circuit with steel that electric, magnetic and energy processes of all harmonics are determined by the energy of the first harmonic. Therefore, the magnetic characteristics have to be standardized on the basis of the first harmonics of the magnetic induction, the field intensity and the

Card 1/2

S/032/63/029/003/009/020

B104/3186

Some problems of establishing and ...

corresponding phase shifts. The complex magnetic permeability used in many methods of calculation of magnetic properties have also to be determined from measurements with the first harmonics. There is 1 figure.

ASSOCIATION: Kiyevskiy politekhnicheskiy institut (Kiyev Polytechnic Institute)

Card 2/2

24(3)

PHASE I BOOK EXPLOITATION

SOV/2530

Akademiya nauk Ukrainskoy SSR. Institut elekrotekhniki

Voprosy magnitnykh izmereniy (Problems of Magnetic Measurements) Kiyev, Izd-vo
AN UkrSSR, 1959. 117 p. 1,000 copies printed.

Ed. of Publishing House: I. Kisina; Tech. Ed: M.I. Yefimova; Editorial
Board: A.D. Nesterenko, Corresponding Member, Ukrainian SSR Academy of
Sciences (Resp. Ed.), S.A. Lebedev, Academician, S.I. Tetel'baum,
Corresponding Member, Ukrainian SSR Academy of Sciences (Deceased).
L.V. Tsukernik, Candidate of Technical Sciences, A.N. Milyak, Candidate
of Technical Sciences, and Ye. V. Khrushchova, Candidate of Technical
Sciences.

PURPOSE: This collection of articles is intended for designers and makers of
electrical instruments and scientific staff members of research and plant
laboratories engaged in electrical and magnetic measurement.

COVERAGE: The authors present results of magnetic measurements conducted at the
Laboratory for Electrical and Magnetic Measurements of the Electrical Engineering
Institute, Academy of Sciences, UkrSSR. They discuss testing of high coercive
Card 1/6

Problems of Magnetic Measurements

SOV/2530

magnetic materials used in the manufacture of permanent magnets and compare various methods of testing hard magnetic materials. They also describe various methods of measuring field intensity and flux density and evaluate the accuracy of those methods. They discuss methods of testing soft magnetic materials and consider problems of resolving total iron core losses into components. They also discuss testing of ferromagnetic materials at high frequencies and describe problems of measuring losses with the aid of a calorimeter. References appear at the end of each article.

TABLE OF CONTENTS:

From the Editor	3
Nesterenko, A.D. Terminology Used in the Field of Magnetic Measurements The author considers the problem of terminology for the induction method of measuring flux density and field intensity. He points out that basic physical phenomena of the process should be considered when introducing terminology for the induction method of measurement. There are no references.	5
Kubyshin, B.Ye. Determination of Permeability of Substances in an Alternating Field	6

Card 2/6

Problems of Magnetic Measurements

SOV/2530

The author discusses a method of determining magnetic permeability of a substance from data for dynamic characteristics in an alternating magnetic field. He also presents a method of determining complex magnetic permeability at frequencies different from those at which measurements were taken and resolution of losses into components was made. There are 3 references, all Soviet.

Rozhanovskiy, I.M. Magnetic Characteristics of Iron in Alternating Magnetic Fields

20

The author studies magnetic characteristics of iron in alternating magnetic fields and analyzes the effect of eddy currents, demagnetizing action of higher-harmonic currents in a magnetizing circuit and the type of the applied voltage. He also investigates functional relationships between the flux density and the field intensity and discusses a circuit used in the study. There are 4 references, all Soviet.

Rozhanovskiy, I.M. Recommended Methods of Resolving Iron Core Losses Into Components

33

Card 3/6

Problems of Magnetic Measurements

SOV/2530

The author discusses analytical and graphical methods of resolving total iron losses at various frequencies into hysteresis and eddy-current components. The methods presented utilize the experimental data of total loss in iron taken at various frequencies and at a constant flux density. There are 8 references: 6 Soviet, 1 English and 1 German.

Petrochenko, V.F. Resolution of Iron Core Losses Into Components by the Two-frequency Method Under the Condition of Constant Eddy-current Losses 45

The author discusses a method of resolving total iron losses into components at two frequencies. He also evaluates experimental results obtained by using this method. There are 6 references: 5 Soviet and 1 English.

Mesterenko, A.D. Use of Balancing Circuits for Testing of Soft Magnetic Materials in a Constant Magnetic Field 53

The author discusses the possibility of using balance method for obtaining a magnetization curve and a hysteresis loop of ferromagnetic materials. He also describes circuits used in the experimental study. There are 5 references: 4 Soviet and 1 English.

Fevraleva, N. Ye. Measurement of Field Intensity in Devices for Testing Hard Magnetic Materials by Means of a Test Generator 62

Card 4/6

Problems of Magnetic Measurements

sov/2530

The author describes a test generator for measuring field intensity and discusses the generator error. The generator was developed at the Laboratory of Magnetic and Electrical Measurements of the Electrical Engineering Institute, Academy of Sciences, UkrSSR. There are 5 references, all Soviet.

Iyubchenko, G.I., A.D. Nesterenko, and N.Ye. Fevraleva. Errors of Devices For Testing High Coercive Magnetic Materials

71

The authors discuss devices used for determining residual magnetism and coercive force. Attention is given to a device with compensating coils and a bridge-type device developed at the Laboratory for Magnetic and Electrical Measurements of the Electrical Engineering Institute, Academy of Sciences, UkrSSR. The authors discuss the construction and operation of these devices and describe their characteristics. There are 5 references: 4 Soviet and 1 German.

Fevraleva, N.Ye. Utilization of the Hall Effect in Germanium for Measuring Magnetic Flux

86

Card 5/6

Problems of Magnetic Measurements

sov/2530

The author presents a general description of the Hall effect and discusses its application for measuring magnetic flux. She describes a circuit using a germanium crystal for measuring flux and discusses circuit error. There are 8 references: 4 Soviet, 2 English and 2 German.

Karpenko, V.P. Calorimetric Method of Measuring Losses in Ferromagnetic Materials

96

The author discusses calorimeter circuits used for measuring iron losses at high frequencies. He also describes the error of the calorimetric method. There are 5 references, all Soviet.

Karpenko, V.P. Possibilities of Using T-Circuits for Magnetic Measurement 105

The author analyzes various T-circuits and discusses their application in determining magnetic characteristics of ferromagnetic materials at low and medium frequencies. There are 4 references: 2 Soviet and 2 English.

AVAILABLE: Library of Congress

Card 6/6

JP/gmp
II-23-59

Kozhavoskiy, I.M.

NAME & BOOK INFORMATION

SOV/4457

Academy's book translator EMN. Institut elektrotehniki

Populyarnaya elektronika i radioelektronika (Overall Problems of the Electric

Department Industry) Kiev, 1960. 262 p., 3,000 copies printed.

Additional Publishing Agency: Maschino-tekhnicheskoye obshchestvo priobrashcheniya

pripravleniit, Ukrzakaz, Republikanskoye pravoslavie

Ukrainian Sov. Acad. of Sciences (Inst. of Physics, Ed.), M. I. Levin, Doctor of Technical Sciences

P. P. Gerasimov, Candidate of Technical Sciences, V. P. Petrovskiy, Cand.

ate of Technical Sciences, A. P. Gorodovikov, Engineer, G. G. Zaslavskiy,

Bogushev, and N. A. Belova; Ed. of Publishing House: B. A. Kazanskiy Tech.

M.; M. I. Tikhonov.

PURPOSE: This book is intended for technical personnel working in the field of electrical measurement techniques, in electrical instrument plants, in laboratories of

various electric power systems and in electric measurement laboratories or

plants.

CONTENTS: This is a collection of reports presented at a conference on the over-

all problems of the Soviet electrical instrument industry held in Kiev on October 20-21, 1956. The conference was convened by the Institute of Elec-

trical Apparatuses and Institutes of Electrical Engineering, Academy of Sciences

of Ukraine, Sov. Inst. of Radioelectronics and Communications, Ministry of Radioelectronics and Sov. Inst. of

Technical Education. Problems relating to electrical instruments, as a

whole, were discussed by A. D. Kostylev, P. P. Gerasimov, Ya. S. Averbuch, Ye. O.

Sukharev, and others. Problems relating to the development of

reference instruments (Yu. S. Averbuch, I. K. Kotov), the automation of

electrical measuring circuits (A. Ya. Shmelev, I. Ya. Hlybov), and to the

theory and practice of magnetic measurements (M. N. Sushita, G. L. Gorobets).

Attending the conference were workers of scientific research institutes and

methods of higher education, along with representatives of the power electric

instrument plants ("Eletrosvit" in Leningrad, "Tehnika" in Kiev, "

Tehnokombinat" in Chelyabinsk, and others) and of various min-

istry companies and of the experts.

REFERENCES: I. Apparatus for Measuring the Magnetic Character-

istics of Ferries 105

The author describes the design of a reference apparatus constructed entirely of Soviet materials and used for measuring magnetic ferrite characteristics.

Nikitin, S. M. and Yu. A. Bunkinava. Installation for Testing

Magnetically Soft (Non-Fe) Materials at Relativ Frequency 122

The authors report on a 500-kW installation for testing non-

rective materials at relativ frequency. Reasons are given

for the selection of circuit and operational installation.

Gorobets, G. I. Apparatus for Testing Magnetic Material Designed

as the "Tehnika" Ferrier, Plant, and Immediate Data Related to the

Construction of New Apparatus 124

The author describes the apparatus UPI-2 and its installation

designed and constructed by "Tehnika" Ferrier Plant of the

Ukrainian Electrotechnical Institute. Sov. Acad. of Sciences, I. B. Tikhonov,

Petrenko, V. V. Devices for Testing Electric Steel in a Variable

Current 124

The feasibility of using the differential galvanometer approach

for testing plant currents is noted. The apparatus, which is a galvanometer designed in the laboratory for E. I. G. and the Institute

of Measurements of the Institute of Radioelectronics, All Union Electrotech-

nical Institute (the leaders of Sc. Sections: V. P. Gerasimov, G. G. Zaslavskiy,

and others), as well as the installation, constructed on the basis of

the circuit which is based upon the testing whole sheets and small

pieces of electric steel. Permissible accuracy of both installa-

tions for testing plant currents is indicated. There are 5 meter-

readings.

REFERENCES: I. New Methods of Distributing Losses in Electric

Cables 125

The author establishes a method of distributing losses in speci-

fically new references, all Soviet.

CH-2 142

ROZHANOVSKIY, I.M.

Comparing various methods of determining steel losses. Izv. KPI
22:63-78 '57. (MIRA 11:3)
(Steel--Magnetic properties)

ROZHANOVSKIY, I.M.

Complex magnetic inductivity as characteristics of ferromagnetic substances in variable fields, Izv. KPI 22:79-84 '57. (MIRA 11:3)
(Ferroelectric substances)

ROZHANOVSKIY, I. M.

"Certain Problems Involved in the Investigation of Ferromagnetic Materials in Magnetic Fields of Industrial Frequencies." Cand Tech Sci, Kiev Order of Lenin Polytechnic Inst, 3 Dec 54. (PU, 23 Nov 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (11)

SO: Sum. No. 521, 2 Jun 55

ROZHANOVSKIY, I.M.

Concerning the standardization of magnetic characteristics in
varying magnetic fields with a commercial frequency. Sbor.trud.
Inst.elekrotekh. AN URSR no.18:3-15 '61. (MIRA 15:2)
(Magnetic fields)(Magnetic materials)

VASIL'YEV, Ye.D.; VERKHOVTSEV, V.S.; VOROBKEVICH, V.Yu.; BAN'YUK, I.S.;
PETRUSHKO, I.V.; PILIPENKO, N.S.; RAKOV, M.A.; ROZHANOVSKIY,
R.V.; SINITSKIY, L.A., kand. tekhn. nauk; SHKOL'NYY, V.A.;
SHUMKOV, Yu.M.; YEVSEYENKO-MISURENKO, I.V., red.

[Direct current measuring converters] Izmeritel'nye preobra-
zovateli postoiannogo toka. Kiev, Naukova dumka, 1965. 373 p.
(MIRA 18:6)

1. Akademiya nauk URSR, Kiev. Fizyko-mekhanichnyi instytut.
2. Fiziko-mekhanicheskiy institut AN Ukr.SSR, g.L'vov (for
all except Yevseyenko-Misyurenko).

Rozhanovskiy, S.

Use of hybrids to fight weeds in growing grains. G. Babnev and S. Rozhanovskii. Sov. Sel'shoz. Khoz. Azerbaidzhana 1954, No. 3, 39. Referat: Zhur. Khim. 1954, No. 41855. A field of winter wheat was sprayed with the Russian prepn. 2M-4Kh (I) at 200 l. of a 1 soln./ha. Just at the sprouting time of the plants (April 18), the spraying was repeated on May 16. A great majority of the weeds, commonly growing among wheat plants, were killed after 5 days by using 0.5 kg. I/ha.; after 10-12 days, when 0.75 kg. I/ha. was used, all weed plants were killed, including

Canada thistle; the roots of the weeds were also greatly damaged. G. Wiericki.

ROZHANOVSKIY, S. Yu.

Anatomical structure of fruits and seeds of *Juniperus turkestanica* Kom., *J. seravschanica* Kom. and *J. semiglobosa* Rgl.
Uzb. biol. zhur. 8 no. 5: 51-58 '64 (MIRA 18:2)

ROZHANOVSKIY, S.Yu.

Anatomical features of the seeds of the sedge *Carex physodes*
M.V. and C. *pachystylis* Gay. Uzb.biol.zhur. no.1:27-34 '60.
(MIRA 13:6)

1. Institut botaniki AN UzSSR.
(SEDGES) (SEEDS--ANATOMY)

KANASH, S.S., akademik; MAL'TSEV, A.M.; VLASOVA, N.A.; PASHCHENKO, Z.M.; ROZHANOVSKIY, S.Yu.; MAUYER, F.M.; MOKEYEVA, Ye.A.; KLYUYEV, G.A.; BURYGIN, V.A.; SHLEYKHER, A.I.; RUMI, V.A.; ROMANOV, I.D.; AVTONOMOV, A.I., otv.red.; MUKHAMEDZHANOV, M.V., akademik, glavnnyy red.; RYZHOV, S.N., akademik, zamestitel' glavnogo red.; ALIMOV, R.A., red.; DABADAYEV, A.D., akademik, red.; DZHALILOV, Kh.M., kand. ekon.nauk, red.; YEREMENKO, V.Ye., akademik, red.; ZAKIROV, K.Z., akademik, red.; MANNANOV, N.M., akademik, red.; NABIYEV, M.N., akademik, red.; SADIKOV, S.S., red.; TOGOYEV, I.N., kand.ekon.nauk, red.; YAKHONTOV, V.V., red.; KURANOVA, L.I., red.izd-va; RAKHMANOVA, M.D., red.izd-va; BARTSEVA, V.P., tekhn.red.

[Cotton] Khlopchatnik. Tashkent. Vol.3. [Structure and development of cotton] Stroenie i razvitiye khlopchatnika. 1960. 402 p.

(MIRA 13:10)

1. Akademiya nauk Uzbekskoy SSR, Tashkent. 2. Akademiki UzSSR (for Kanash, Mukhamedzhanov, Zakirov, Nabiyev). 3. Vsesoyuznaya akademiya sel'skokhozyaystvennykh nauk imeni V.I.Lenina (for Kanash). 4. Tsentral'naya selektsionnaya stantsiya Vsesoyuznogo nauchno-issledovatel'skogo instituta khlopkovodstva Uzbekskoy akademii sel'skokhozyaystvennykh nauk (for Kanash). 5. Tashkentskiy sel'skokhozyaystvennyy institut (for Mal'tsev, Shleykher). 6. Institut genetiki i fiziologii rasteniy AN UzSSR (for Vlasova, Mauyer, Klyuyev, Rumi, Romanov).

(Continued on next card)

KANASH, S.S. --- (continued) Card 2.

7. Sredneaziatskiy gosudarstvennyy universitet (for Pashchenko).
8. Institut botaniki AN UzSSR (for Rozhanovskiy, Mokeyeva, Burygin).
9. Chleny-korrespondenty AN UzSSR (for Avtonomov, Alimov, Yeremenko, Sadykov, Yakhontov).
10. Uzbekskaya Akademiya sel'skokhozyaystvennykh nauk (for Mukhamedzhanov, Ryzhov, Dadasbayev, Yeremenko, Zakirov, Mannanov).

(Cotton)

USSR/Cultivated Plants - General Problems.

M-1

Abs Jour : Ref Zhur - Biol., No 7, 1958, 29647

Author : Rozhanovskiy, S.Yu.

Inst :
Title : The Nature of the Plant Remains Found at Excavations in
Fergana, Dating from the First Centuries Anno Domini.

Orig Pub : Tr. Muzeyu istorii AN UzSSR, 1956, vyp. 3, 75-80.

Abstract : A morphological and anatomical study of the plant remains
shows that the inhabitants at Fergana in the First and
Second Centuries A.D. had utilized cotton, flax, birch,
ash, poplar, willow, walnut and juniper for economic pur-
poses.

Card 1/1

- 6 -

ROZHANOVSKIY, S.YU.

Rozhanovskiy, S.Yu. "On the structural reaction of the cotton plant leaf to soil saltification", Izvestiya Akad. nauk UzSSR, 1948, No. 3, p. 19-27, (Resume in Uzbek), - Bibliog:10 items.

SO: U-3042, 11 March 53, (Letopis 'nykh Statey, No. 9, 1949)

ROZHANOVSKIY, S. Yu., Cand Bio Sci -- "Anatomical *charac-*
teristics of the seeds of certain ephemera and ephemerids
of Central Asia deserts." Tashkent, 1961. (Acad Sci
UzSSR. Inst of Bot) (KL, 8-61, 238)

- 168 -
- 169 -

ROZHANKOVSKIY, V., nauchnyy sotrudnik.

Revival of Ukrainian glassworks. Prom. koop. no.12:15 D '57.
(MIRA 10:12)

1. Ukrainskiy muzey etnografii i khudozhestvennoy promyshlennosti
AN USSR. (Lvov--Glass manufacture)

"APPROVED FOR RELEASE: 09/19/2001

CIA-RDP86-00513R001445710002-7

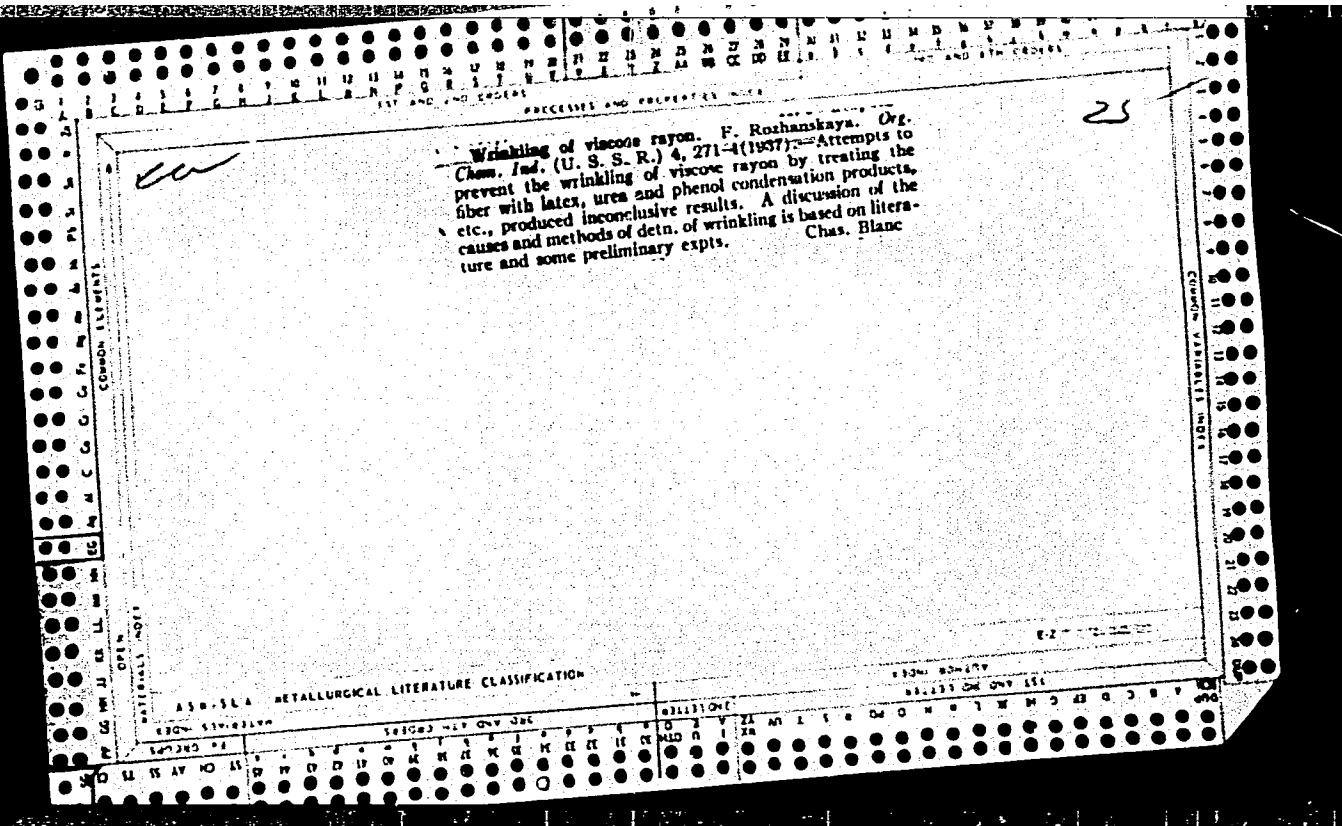
ROZHANSKAY, Yu. A.

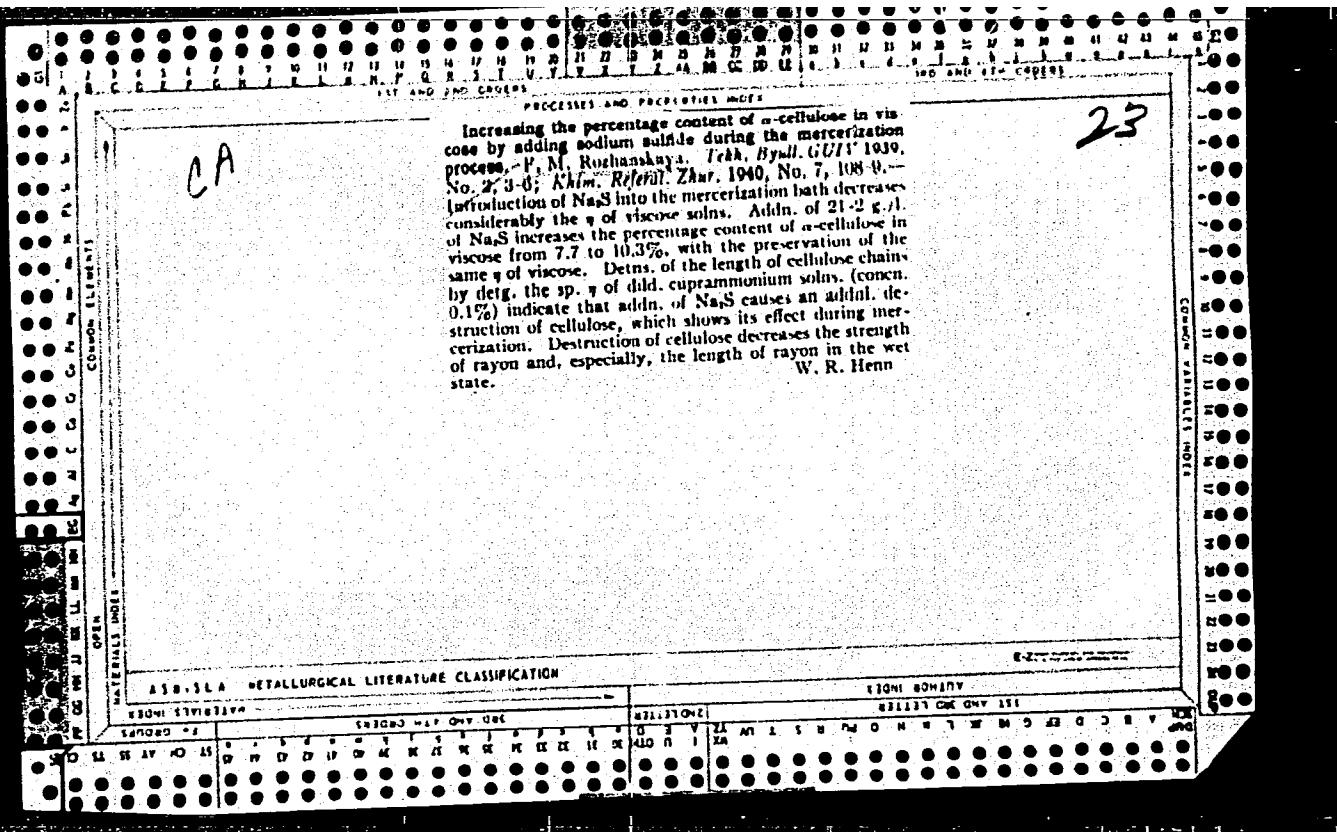
"Theory of Open Reflections," Usp. Mat. Nauk Vol. 6 No. 4 (44), pp 193-220, 1951.

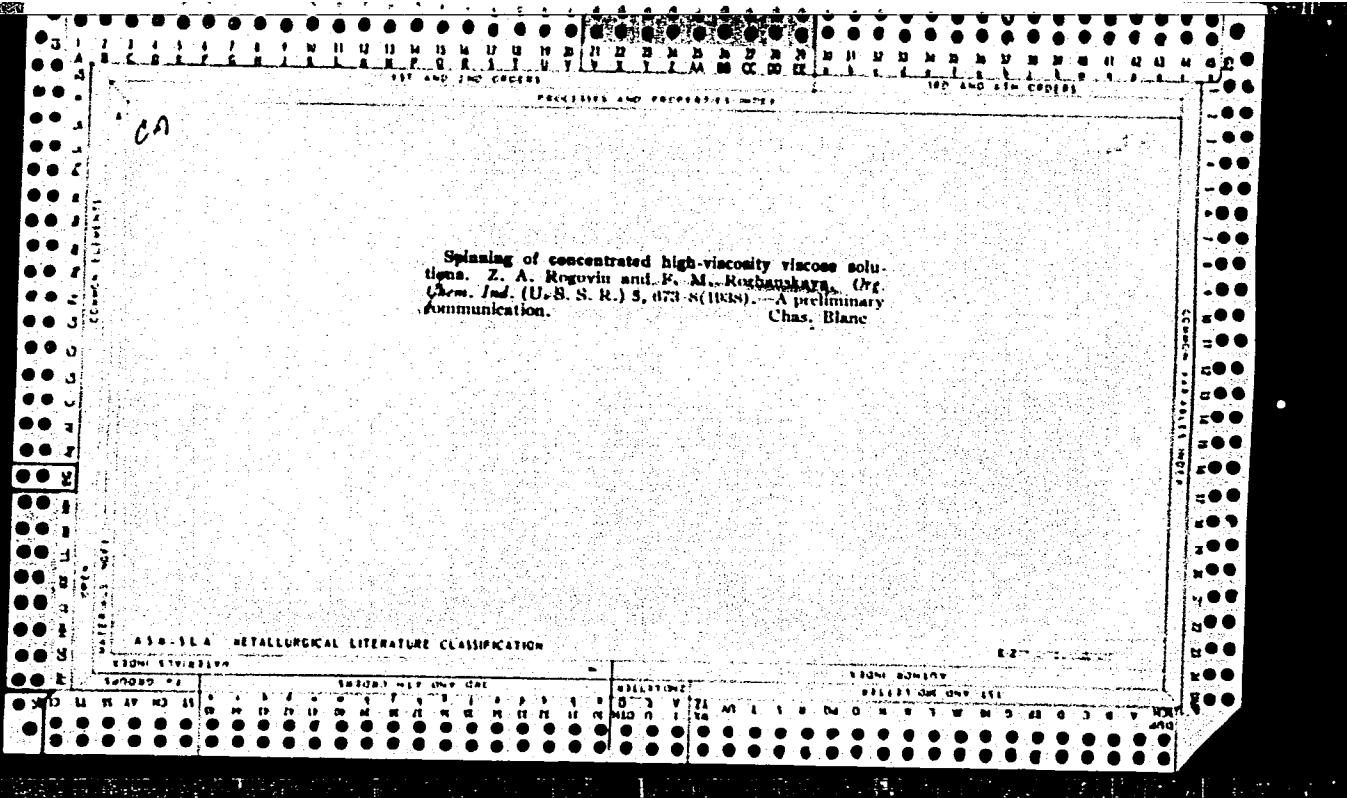
U-1635, 16 Jan 52

APPROVED FOR RELEASE: 09/19/2001

CIA-RDP86-00513R001445710002-7"







ROGOVIN, Z.A.; ROZHANSKAYA, F.M.; PEREPECHKIN, L.P.

Spinning of a triacetate staple fiber. Khim.volok. no.1:48-51
'61. (MIRA 14:2)

1. Moskovskiy tekstil'nyy institut (for Rogovin). 2. Vsesoyuznyy
nauchno-issledovatel'skiy institut iskusstvennogo volokna (for
Rozhanskaya, Perepechkin).
(Textile fibers, Synthetic)

BAYBAKOVA, Z.V.; ROZHANSKAYA, F.M.; ROGOVIN, Z.A.

Formation of staple fiber from acetic acid solutions of triacetyl cellulose. Khim.volok. no.6:46-48 '61. (MIRA 14:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut iskusstvennogo volokna.
(Cellulose acetate) (Textile fibers, Synthetic)

"APPROVED FOR RELEASE: 09/19/2001

CIA-RDP86-00513R001445710002-7

BURMAN-KAYA, G.I.

Cobalt content of Water in the Black Sea and the Sea of
Azov. Trudy SSSR 16:467-471 '63. (MRA 17:6)

APPROVED FOR RELEASE: 09/19/2001

CIA-RDP86-00513R001445710002-7"

LANSKAYA, L.A.; VITYUK, D.M.; ROZHANSKAYA, L.I.

Some data on the chemical composition of marine planktonic algae
cultivated under artificial and natural illumination. Trudy SBS
17:346-350 '64. (MIRA 18:6)

ROZHANSKAYA, I.I.

Content and distribution of copper in the water of the Sea of
Azov. Okeanologiya 5 no.6:983-986 '65. (MIRA 19:1)

1. Institut biologii yuzhnykh morey imeni A.O. Kovalevskogo
AN UkrSSR, Sevastopol'. Submitted January 4, 1965.

ROZHANSKAYA, M.M.

Stability of the screw motion of a torus in an ideal incompressible fluid. Vest. Mosk. un. Ser. 1: Mat., mekh. 16 no.2:65-70 Mr-Ap '61. (MIRA 14:4)

1. Kafedra teoreticheskoy mehaniki Moskovskogo universiteta.
(Hydrodynamics)

S/055/61/000/002/006/007
C111/C222

AUTHOR: Rozhanskaya, M.M.

TITLE: On the stability of the screw motion of a torus in an ideal incompressible fluid

PERIODICAL: Moscow. Universitet. Vestnik. Seriya I. Matematika, mekhanika, no.2, 1961, 65-70

TEXT: With the aid of a Lyapunov function the author obtains necessary and sufficient conditions for the stability of a screw motion of the torus. Here the older conditions of A.Basset (Ref.3: On the motion of a ring in an infinite liquid. Proc.Cambridge Philos. Soc., VI, 1887) and Fawcett (Ref.4: Note on the motion of solids in a liquid. Quarterly J.Pure and Appl.Math., XXVI, 1893) are found to be necessary conditions. According to N.G.Chetayev the Lyapunov function is constructed as a bundle of integrals of the disturbed motion. At first let the torus be in rest, and let the fluid flow through it with an ambiguous velocity potential. Then the torus gets a motion and it is left to its inertia. Let the axis of the torus be the OX-axis.

Then.

$$2T = Au^2 + B(v^2 + w^2) + Pp^2 + Q(q^2 + r^2) + [\chi, \dot{\chi}] \approx^2,$$

Card 1/4

S/055/61/000/002/006/007

C111/C222

On the stability of the screw motion...

where A,B -- variated torus masses; P,Q -- variated moments of inertia;
 u,v,w and p,q,r -- components of the translation velocity and speed of
 rotation, ξ -- cyclic circulating constant. The motion equations read

$$\frac{dR_1}{dt} = \frac{R_2P_3 - P_2R_3}{Q}, \quad \frac{dR_2}{dt} = \frac{R_3P_1 - P_3R_1}{P}, \quad (1)$$

$$\frac{dR_3}{dt} = \frac{R_1P_2 - P_1R_2}{Q}.$$

$$\frac{dP_1}{dt} = 0, \quad \frac{dP_2}{dt} = \frac{(R_1 - \xi_0)R_3}{A} - \frac{R_1R_3}{B} - (P - Q)\frac{P_1P_3}{PQ}, \quad (2)$$

$$\frac{dP_3}{dt} = \frac{R_1R_2}{B} - \frac{(R_1 - \xi_0)R_2}{A} + (P - Q)\frac{P_1P_2}{PQ}$$

where $R_1 = Au + \xi_0$, $R_2 = Bv$, $R_3 = Bw$, $P_1 = Pp$, $P_2 = Qq$, $P_3 = Qr$ and ξ_0
 is a constant. The stationary screw motion in the OX-direction is
 described by

$$R_1 = R_1^0, \quad P_1 = P_1^0, \quad R_2 = R_3 = P_2 = P_3 = 0. \quad (3)$$

Card 2/4

S/055/61/000/002/006/007
C111/C222

On the stability of the screw motion...

The author investigates the stability of the disturbed motion

$$P_1 = P_1^0 + \alpha_1, \quad P_2 = \alpha_2, \quad P_3 = \alpha_3$$

$$R_1 = R_1^0 + \beta_1, \quad R_2 = \beta_2, \quad R_3 = \beta_3.$$

Let

$$\frac{P}{MP+1} = Q_0, \quad \frac{P_1^0}{R_1^0} = Q_1, \quad \frac{\xi_0}{AR_1^0} = Q_2, \quad \frac{B-A}{AB} = Q_3$$

and let $M = \frac{1}{Q} - \frac{1}{P}$ (then $Q_0 = Q$).

It is proved that the condition

$$Q_1^2 + 4QQ_2 > \max(0.4QQ_3) \quad (9)$$

is sufficient for the stability of the disturbed motion and in the case

$$B > A \quad (10)$$

it is also necessary.

Two exceptional cases are considered.

Card 3/4

On the stability of the screw motion...

S/055/61/000/002/006/007
C111/C222

The author mentions A.M.Lyapunov, N.G.Chetayev, and thanks Professor V.V.Rumyantsev for aid. There are 4 Soviet-bloc and 4 non-Soviet-bloc references. The references to the four English-language publications read as follows: W.Thomson. Hydrokinetic solutions and observations. Phil.Mag., IV, 42, 1871. G.Lamb. Gidrodinamika [Hydrodynamics]. Gostechizdat, M.-L., 1947. A.Basset. On the motion of a ring in an infinite liquid. Proc.Cambridge Philos.Soc., VI, 1887. Fawcett. Note on the motion of solids in a liquid. Quarterly J.Pure and Appl. Math., XXVI, 1893.

ASSOCIATION: Kafedra teoreticheskoy mekhaniki (Chair of Theoretical Mechanics)

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Card 4/4

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From the result of Haplanov stated in the preceding re-
view it follows that if the matrix M of the sequence $f_n(x)$
maps A_R into A_R , $R_1 < R$, then M has a spectrum consisting
of isolated eigenvalues, i.e. a pure point spectrum. The
present paper generalizes this result as follows: If the infinite
matrix (a_{ik}) satisfies the condition $|a_{ik}| \leq Nq^k$ for $i < k$,
 $0 < q < 1$, N an arbitrary real number, then the spectrum
of (a_{ik}) consists entirely of isolated eigenvalues.

B. Crabtree (Durham, N. H.).

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The regime describing the components of heat balance, especially evaporation, in regions with artificial irrigation in Saratov Rayon (Engel'skaya Experimental Land-Improvement Station) in the summers of 1951 and 1952 is considered. The total evaporation is computed according to the method of heat balance. Analysis of the components is connected with the general conditions of the weather, which sharply differed in 1951 and 1952. In 1951, in consequence of the hot dry weather the main expended portion of the heat balance in nonirrigated areas was turbulent heat exchange (85% of the radiational balance). In 1952, because of the large quantity of precipitation, almost all the heat, even in dry areas, was expended in evaporation, and only toward the end of the period of the observations (15 July) did the usual structure of the components of the heat balance become reestablished. In the irrigated field during both of the years the expended portion of the balance was determined by the expenditures of heat in evaporation. The magnitude of evaporability considerably exceeded the magnitude of the radiational balance for masses insignificant in area. Computation of total evaporation according to radiational balance for large irrigated masses throughout

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Continued:

the entire vegetational period must, on the contrary, be considered exaggerated, since in the first period of vegetation the evaporation is considerably less than the radiational balance. (RZhGeol, No 10, 1955)

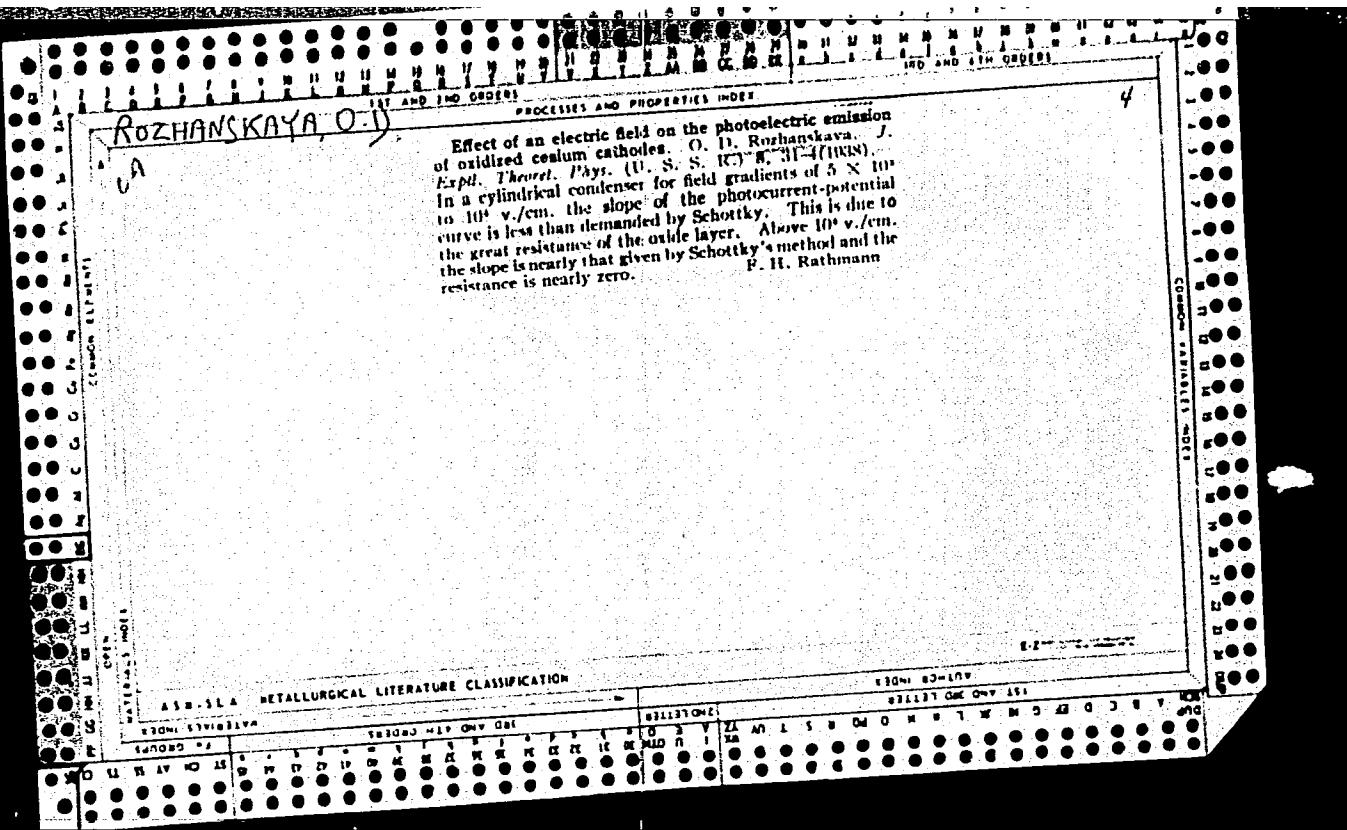
SO: Sum No 884, 9 Apr 1956

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"Study of the Processes Governing Evaporation in the Case of Moisture-Charging Irrigation".
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In a course of 22 days in May and June 1953 on the fields of the kolkhoz called "Path to Communism" in Rostovskaya Oblast, microclimatic observations were conducted on a field of winter wheat irrigated by the moisture-charging method (irrigation norm 1,500-2,000 cubic meters per hectare), and on an unirrigated control field. The radiational balance during irrigation varied but little. Radiation penetrating to the surface of the soil amounted to 13-17% (up to 53% on the unirrigated field of the total radiation. Heat exchange in the soil was practically identical in both plots and amounted to 10-13% of the radiational balance. Expenditure of heat in evaporation in the irrigated plot throughout the period up to the phase of flowering amounted to 80-82% of the radiational balance and later on decreased. (RZhGeol, Nov 10, 1955)

SO: Sum No 884, 9 Apr 1956



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